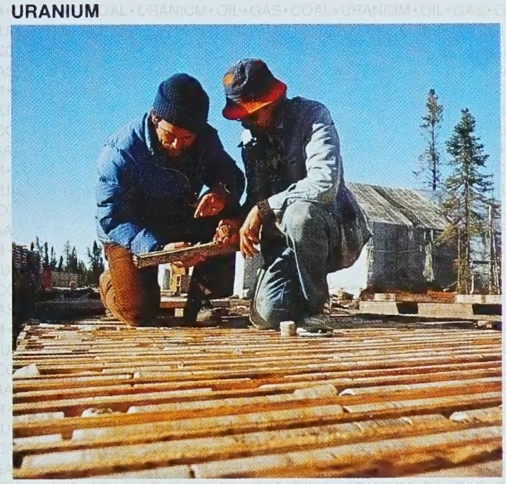
# Bow Valley Industries Ltd.

# Annual Report 1979

GAS

URANIUM



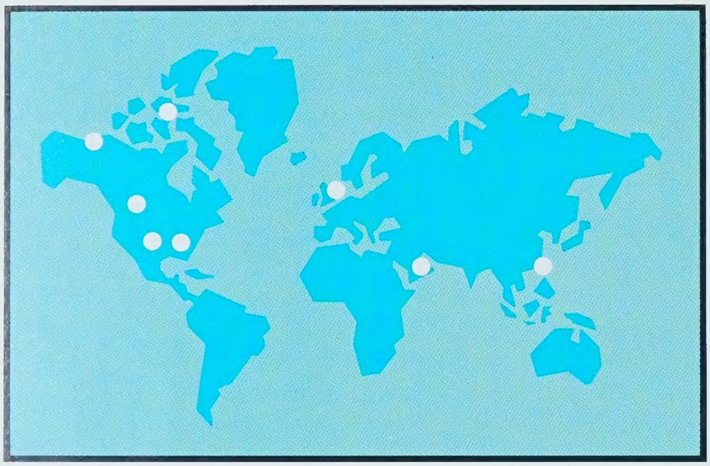

COAL

OIL

# Bow Valley Industries Ltd.

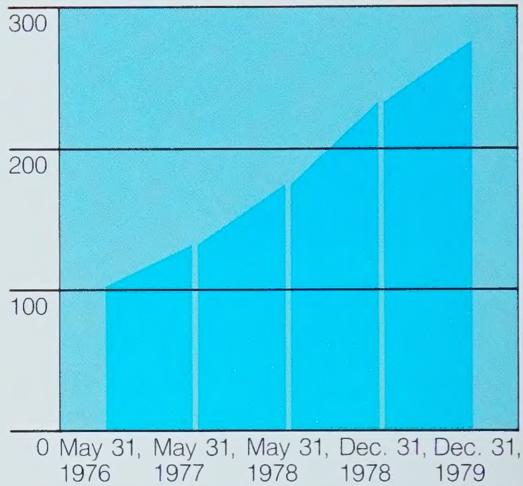
*Bow Valley Industries Ltd. is a Canadian natural resource company incorporated under the laws of the Province of Alberta in 1950. The activities of Bow Valley are conducted under two operating entities:*

- *Bow Valley Exploration is engaged in domestic and international exploration and development of oil, gas, coal, and uranium.*
- *Bow Valley Resource Services Ltd. provides service and manufacturing facilities to the natural resource industry in North America.*

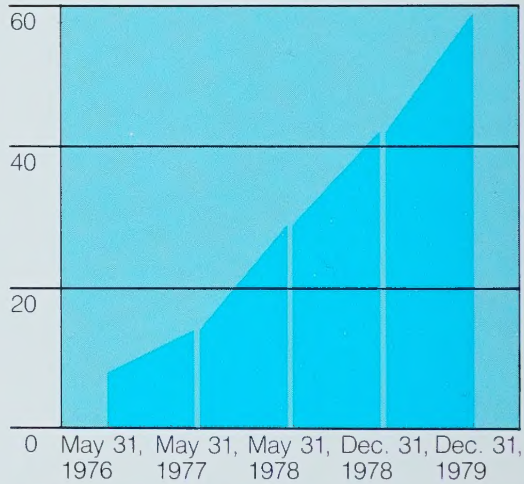


Bow Valley's worldwide areas of activity

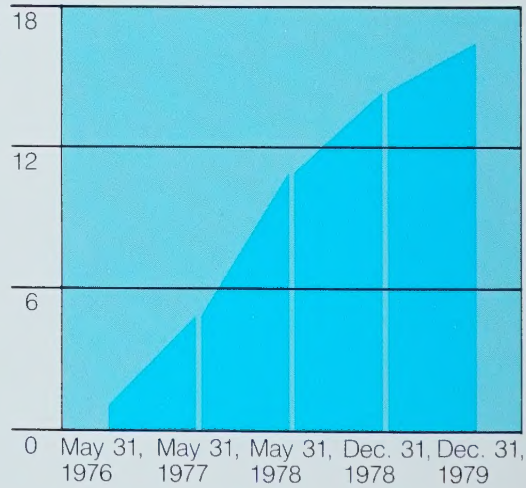
**REVENUE**
*(In millions of dollars)*




**CASH FLOW**
*(In millions of dollars)*




**NET INCOME**
*(In millions of dollars)*




**Form 10-K**

A copy of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1979, as filed with the U.S. Securities and Exchange Commission may be obtained without charge by writing to the Vice-President and Secretary, Bow Valley Industries Ltd., P.O. Box 6620, Postal Station D, Calgary, Alberta, Canada T2P 2V8.

**Annual General Meeting**

The Annual General Meeting of the Shareholders of Bow Valley Industries Ltd. will be held in Calgary in the Lakeview Room of the Calgary Inn at 10:00 a.m., May 13, 1980.

# The Year in Brief

J. RICHARD HARRIS DARYL K. SEAMAN BYRON J. SEAMAN

| | December 31, 1979 | December 31, 1978 |
|---|---|---|
| Revenue | $275,648,000 | $232,547,000 |
| Cash Flow | $ 58,764,000 | $ 42,012,000 |
| Per Common Share | $ 5.36 | $ 4.31 |
| Net Income | $ 16,367,000 | $ 14,342,000 |
| Per Common Share | $ 1.48 | $ 1.41 |
| Average Shares Outstanding | 10,961,000 | 9,746,000 |
| Capital Expenditures | $ 78,029,000 | $ 85,684,000 |
| Working Capital | $ 16,791,000 | $ 10,051,000 |

# Report to the Shareholders

## FINANCIAL

Revenue in 1979 improved 18 percent over last year reaching $276 million compared to $233 million in 1978. Cash flow increased to $59 million ($5.36 per share) from $42 million ($4.31 per share). Net income was $16 million ($1.48 per share) in the year under review versus $14 million ($1.41 per share) the previous year.

Capital expenditures in 1979 totalled $78 million. The major items were $53 million for oil and gas exploration and development, $10 million for oilwell drilling equipment, and $9 million for new coal facilities and capital replacements.

Bow Valley's cash position was augmented in May 1979 with the proceeds from a sale of one million of its common shares to a group of Canadian financial institutions. The sale realized $26 million, with the funds being used to reduce outstanding bank indebtedness. Bow Valley's working capital was $17 million at the year's end.

In late March 1980 Bow Valley filed a preliminary prospectus relating to the issue and sale in Canada of convertible redeemable preferred shares. Complete details of amount, terms, and conditions of the issue will not be determined for several weeks and will depend on stock market conditions at that time. Part of the proceeds from the sale of the preferred shares would be used to reduce bank debt to lessen Bow Valley's vulnerability to both interest costs and to the annual amortization required to service bank indebtedness.

## OPERATIONS — BOW VALLEY EXPLORATION

In 1979 Bow Valley invested $64 million in Canada, the United States, the United Kingdom, Abu Dhabi, and eight other countries in the exploration for and development of oil, gas, coal, and uranium.

## OIL AND GAS

Bow Valley participated in drilling 180 wells in 1979, of which 46 exploratory and 77 development wells were successful. Production rates in 1979 were 4,690 barrels of oil per day and 66,746 Mcf of gas per day. Oil sales were 22 percent higher in 1979 while gas sales were slightly lower because of decreased market demand. Proved developed and undeveloped oil and gas reserves at December 31, 1979, were 68 million barrels of oil and 548 billion cubic feet of gas. While there have been no major changes in the North American reserve estimates, the value of the reserves has increased considerably in relationship to the escalating prices for oil and gas.

Bow Valley had an active exploration and development program in Canada and the United States during the year, participating in the drilling of 109 wells in Canada and 67 wells in the United States. Investments by an independent drilling fund managed by Bow Valley contributed to an increase in exploration while government incentives and favourable regulations have also been beneficial to the industry.

In the United Kingdom sector of the North Sea, there recently were two important announcements. In January 1980 the U.K. authorities approved a plan for the development of the South Brae reservoir at an estimated cost of $1.8 billion. In early April 1980 the successful results of the exploratory test 16/3a-1 were announced. The well, nine miles from the nearest Brae well, had five successful tests with oil flows ranging from 2,545 to 3,817 barrels of oil per day and gas flows of 16,600 to 28,800 Mcf per day. These developments at Brae are very encouraging and will eventually have a profound effect on Bow Valley's oil and gas income.

The Arzanah oil field, offshore Abu Dhabi in the Arabian Gulf, began production September 1, 1979, and for the four months ended December 31, 1979, Bow Valley's share was 2,600 barrels of oil per day. Arzanah production was temporarily prorated commencing in March 1980. Bow Valley is currently producing 2,000 barrels per day. There have been substantial price increases for Arzanah oil making this operation a significant source of cash income to Bow Valley.

## COAL

During 1979 Bow Valley sold 1,544,000 tons of coal, a 24 percent increase over the previous year. Higher coal sales represent additional production from newly installed weighing and loading equipment and increased customer demand. Substantially all of Bow Valley's coal sales are high-quality steam coal sold under long term contracts to two major utility companies. These contracts have recently been renegotiated and call for 1,850,000

tons annually to be delivered for extended terms of 15 to 20 years.

Bow Valley has also recently leased additional acreage adjacent to its existing mine facilities in Harlan County, Kentucky. This lease covers about 12 million tons of coal, and negotiations are in progress to increase coal sales from the Harlan County properties. Another long term lease covering about 29 million tons of high-quality steam coal has been signed in Bell County, Kentucky. The production from the property has been contracted to a major utility, which has agreed to purchase 20 million tons, with deliveries scheduled to begin at 100,000 tons in 1981 increasing to one million tons annually in 1986 and thereafter.

The two new coal leases, together with existing reserves, bring Bow Valley's total coal reserves in Kentucky to about 78 million tons. The highly-automated mines and efficient non-union work force are expected to show increased earnings and are considered to be a major component of the Bow Valley operation.

## URANIUM

At Midwest Lake in northern Saskatchewan, 339 core holes had been completed by the end of December of which 192 encountered radioactive mineralization. A reserve report during the summer of 1979 estimated reserves at 56 million pounds of uranium while an independent study in January 1980 indicated reserves were between 75 and 80 million pounds. Mine design and project planning is continuing; commencement of production is expected during the mid-1980s.

## OPERATIONS — BOW VALLEY RESOURCE SERVICES LTD.

In 1979 Bow Valley invested $14 million in oilwell drilling rigs and other service and manufacturing equipment in Canada and the United States.

## OILWELL DRILLING

Bow Valley increased its number of oilwell drilling rigs during 1979 from 44 to 48 and in 1980 will operate 55 rigs. The construction of five rigs has commenced in Canada for work under contract while two shallow rigs have been retired. In addition, Bow Valley recently announced the purchase of a four-rig oilwell drilling operation in the Rocky Mountain area of the United States. These acquisitions of drilling equipment are indicative of management's policy to emphasize higher return investments. Bow Valley's oilwell drilling operation has been consistently profitable and in 1979 again achieved record revenue and operating income.

## OTHER ACTIVITIES

Bow Valley's other service and manufacturing operations all showed improvement in operating results over the previous year and contributed to record operating income.

## OUTLOOK

During 1980 Bow Valley plans to invest $135 million including $76 million for oil and gas exploration and development, $9 million for coal properties and facilities, $3 million for uranium development, and $41 million for oilwell drilling equipment. Bow Valley will finance this expanded program with increased cash flow, non-recourse exploration advances, and other loans.

Energy markets are providing Bow Valley with a favourable environment in which to operate, however, increasing interest rates are a major concern to the Company. The proposed sale of convertible preferred shares should partially alleviate this concern. In addition, other cost control proposals are under review to improve the operating results of the Company.

Bow Valley wishes to express its gratitude to all employees for the year's results and looks forward to continued expansion and improved cash flow and net income in the '80s.

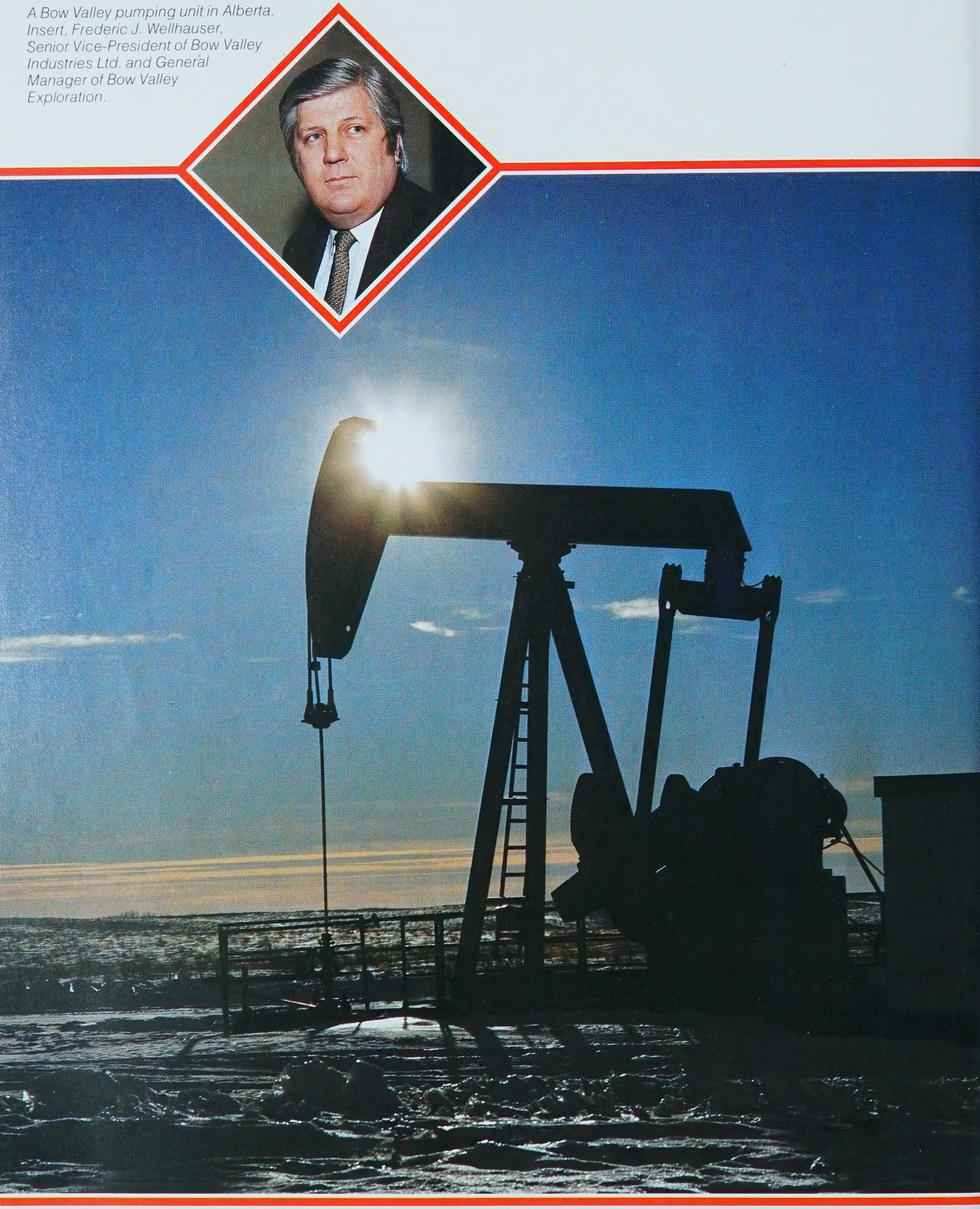
Daryl K. Seaman
Chairman and
Chief Executive Officer

Byron J. Seaman
Vice-Chairman

J. Richard Harris
President and
Chief Operating Officer

April 10, 1980

A Bow Valley pumping unit in Alberta. Insert, Frederic J. Wellhauser, Senior Vice-President of Bow Valley Industries Ltd. and General Manager of Bow Valley Exploration.



# Bow Valley Exploration

Bow Valley Exploration conducts exploration and development operations for oil, gas, coal, and uranium from offices in Calgary, Denver, London, and Singapore. Operations are mainly in Canada, the United States, the North Sea, and the Arabian Gulf offshore Abu Dhabi. Approximately 600 employees are engaged in these operations.

At December 31, 1979, Bow Valley had interests in 13,191,000 gross exploratory acres. During 1979 Bow Valley invested $53,390,000 in exploration and development and participated in the drilling of 180 wells of which 123 were successful. Oil and gas production during 1979 was 4,690 barrels per day and 66,746 Mcf per day. Proved developed and undeveloped reserves at December 31, 1979, were 68,133,000 barrels of oil and 548 Bcf of gas.

## OIL AND GAS

### Canada

Bow Valley has interests in 2,231,000 gross exploratory acres in Alberta, Saskatchewan, and British Columbia. During 1979 Bow Valley spent $12.5 million on exploration and development and participated in the drilling of 109 wells, of which 66 were exploratory wells and 43 were development wells. The success ratio was 59 percent for exploration drilling and 79 percent for development drilling for an overall success ratio of 67 percent.

With the connection of the Wandering River field in 1976, the Forty-Mile Coulee field in 1977, the Airdrie field in 1979, and the Heart Lake field in 1980, Bow Valley completed marketing arrangements for two-thirds of its Canadian gas reserves, which have been under active development since 1966, with the balance awaiting markets. During 1979 Canadian oil and gas production was 1,653 barrels per day and 51,539 Mcf per day. Bow Valley is now placing more emphasis on the exploration for deeper oil and gas reserves in western Alberta and northeastern British Columbia where undeveloped acreage is still available.

In late 1978 Bow Valley entered into a farmout and exploration program with Mega Petrol Canada Limited, which is acting on behalf of a group of West German investors. Under the agreement, Mega has earned 50 percent of substantially all of Bow Valley's undeveloped exploration acreage in Alberta and British Columbia by spending approximately $7 million on exploration. Bow Valley and Mega have agreed to proceed with a joint exploration program in which the parties will spend an additional $12.5 million each during the period 1979 through 1981. Bow Valley will receive from Mega a management fee of ten percent of the funds expended by Mega. In addition, Bow Valley will receive a five percent gross overriding royalty on Mega's interest in this program. Once payout is reached, the gross overriding royalty may be converted to 25 percent of Mega's working interest, on a prospect-by-prospect basis. During 1980 Bow Valley expects to participate in the drilling of 114 wells in western Canada and to spend approximately $15.6 million on exploration and development.

Bow Valley has a 27.5 percent interest in 269,000 gross exploratory acres in the Mackenzie Delta. Suncor Inc., the operator, has drilled five wells, of which two in the Garry Island field were completed as significant oil and gas discoveries and the remaining three tested non-commercial quantities of gas. Of the two successful wells, P-04 tested gas flows of 31,000 Mcf per day and an oil flow of 7,920 barrels per day. The second well, G-07, tested cumulative gas flows of 21,000 Mcf per day from two horizons. Bow Valley's share of proved reserves is estimated to be 21 Bcf of gas and 2,179,700 barrels of oil. There are no current plans for further drilling until a suitable transportation system has been approved.

In the Beaufort Sea, Bow Valley has various interests in 321,000 gross exploratory acres. These lands are approximately 30 to 60 miles from


Bow Valley Land Holdings
Bow Valley Uranium Properties
Bow Valley Coal Properties

shore in water depths ranging from 60 to 200 feet. Marine geophysical work has been completed by Elf Oil Exploration & Production Canada Ltd. and by Suncor, the operators, and while promising structures have been identified, there are no current plans to drill until a suitable transportation system has been approved. An exploration program could be initiated depending on the progress of the Beaufort Sea project of Dome Petroleum Ltd. which has located hydrocarbons at its Kopanoar well approximately 30 miles from one of Bow Valley's leases. Dome's Tarsuit well, which has yet to be tested, is approximately 15 miles from Bow Valley's closest lease.

Bow Valley has a 1.71 percent equity interest in Panarctic Oils Ltd., a company formed jointly by the Government of Canada and others to explore for oil and gas in the Arctic Islands. Panarctic reports that it has discovered approximately 16 trillion cubic feet of gas and that exploration and appraisal drilling for additional reserves is continuing. During 1979 Panarctic participated in the drilling of six exploratory wells and three development wells of which one exploratory well was successful. In 1980 Panarctic expects to participate in the drilling of four exploratory wells.

**United States**

Bow Valley has interests in 1,137,000 gross exploratory acres in the United States. Exploration and development is conducted on this acreage which lies primarily in California, the Rocky Mountain area, Oklahoma, Texas, the Gulf of Mexico, Kentucky, and West Virginia. The majority of Bow Valley's oil production in the United States is in Utah, while gas production is mainly from West Virginia, Colorado, and Texas. During 1979 oil and gas production in the United States was 2,168 barrels per day and 15,207 Mcf per day.

During 1979 Bow Valley spent $13.3 million on exploration and development, including the drilling of 67 wells of which 21 were exploratory wells and 46 were development wells. The success ratio was 33 percent for exploration drilling and 93 percent for development drilling for an overall success ratio of 75 percent. Bow Valley's most significant development drilling occurred in the Altamont-Bluebell oil field in Utah, the Madisonville gas field in Texas, and the Plateau Creek gas field in Colorado. During 1979 Bow Valley accelerated its land acquisition program and acquired more than 250,000 gross acres, including interests in the Williston Basin in Montana and North Dakota.

Bow Valley's activities in the United States have increased significantly during the past two years, partially because of participation in a farmout and exploration program with Mega Petrol (U.S.A.) GmbH & Co. Upon investing U.S. $10 million, Mega will earn 50 percent of Bow Valley's interest in all of Bow Valley's undeveloped exploration acreage west of the Mississippi River. To December 31, 1979, approximately U.S. $4 million had been expended and U.S. $6 million will be spent in 1980. In addition, each party will spend U.S. $3 million in 1980, U.S. $5 million in 1981, and U.S. $5 million in 1982 to explore these lands.

In December 1979 Bow Valley participated in a gas discovery 100 miles offshore Louisiana on East Cameron Block 237. The discovery well, in which Bow Valley has an 18.34 percent interest subject to reduction under the terms of the agreement with Mega, was drilled to 11,633 feet and gas and condensate were discovered in a 50-foot section at about 10,000 feet. The operating group has approved development of the property. Design work has begun on the production platform — a four-pile nine-slot facility. Development drilling should begin in the fourth quarter of 1980 with production expected in 1981. The cost of developing the property is estimated at about $16 million.

During 1980 Bow Valley expects to participate in the drilling of 90 wells and will spend $15 million on exploration and development.

Production platform in the Arzanah oil field. Insert, facilities on Arzanah Island.


● Oil Wells  Oil Fields  ○ Location

## Abu Dhabi

The Arzanah field offshore Abu Dhabi in the Arabian Gulf began production on September 1, 1979. Bow Valley has a ten percent participation in the joint venture, operated by Amerada Hess Corporation. The cost of the project to December 31, 1979, was U.S. $288 million and a further U.S. $44 million is budgeted for 1980. Since going on stream, the field has averaged 26,000 barrels of oil per day to December 31, 1979, and the capacity of the field is expected to increase to its designed flow rate of 35,000 barrels of oil per day upon recompletion of one of the eight producing wells in early 1980. However, the operator has been notified by Abu Dhabian authorities that effective March 4, 1980, Arzanah production would be temporarily prorated to 20,000 barrels per day. Since September 1, 1979, Bow Valley's share of oil production was 2,600 barrels per day. Bow Valley's share for the development of Arzanah has been financed with loans from a Canadian chartered bank.

During March 1980 an appraisal well was spudded on the western flank of the Arzanah field.

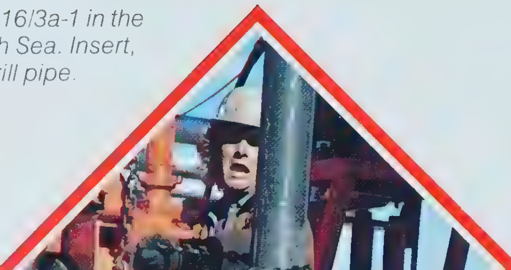
## United Kingdom

Bow Valley acquired an interest in its first production licence in the United Kingdom sector of the North Sea in 1970 and in contiguous production licences in 1971 and 1979. The licences include Blocks 16/2a, 16/3a, 16/3b, and 16/7a and are 150 miles northeast of Aberdeen, Scotland, in approximately 350 feet of water. Bow Valley has a 17.5 percent interest in Block 16/2a, a 14 percent interest in Blocks 16/3a and 16/7a, and a 10 percent interest in Block 16/3b. The first exploratory well was drilled in 1975 on Block 16/7a and discovered the Brae field. Subsequently, 12 wells were drilled on Block 16/7a and have defined three separate reservoirs of the Brae oil field as well as a Paleocene oil and gas discovery to the west. The three reservoirs are designated North, Central, and South Brae.

On January 25, 1980, the Minister of Energy approved a plan for the development of the South Brae reservoir which the operator estimated in August 1979 would cost $1.8 billion. The proposed facilities will include an eight-legged 48-slot steel production platform from which 19 producing wells, 14 water injection wells, and three gas injection wells will be operated. Production is expected to begin in 1983 and to peak at a rate of 112,000 barrels per day of oil and natural gas liquids. A pipeline with a capacity of at least 200,000 barrels per day will be constructed from the production platform to the pipeline system servicing the Forties field and the oil and natural gas liquids transported to shore on a tariff basis. The excess capacity is designed to accommodate any additional production at Brae. Recoverable reserves at South Brae on Bow Valley's production licences are estimated by the Brae Operating Committee at 292 million barrels of oil and natural gas liquids and 154 Bcf of gas.

Two wells will be drilled in 1980 to further delineate North Brae and one well to further appraise Central Brae, with additional wells still under consideration.

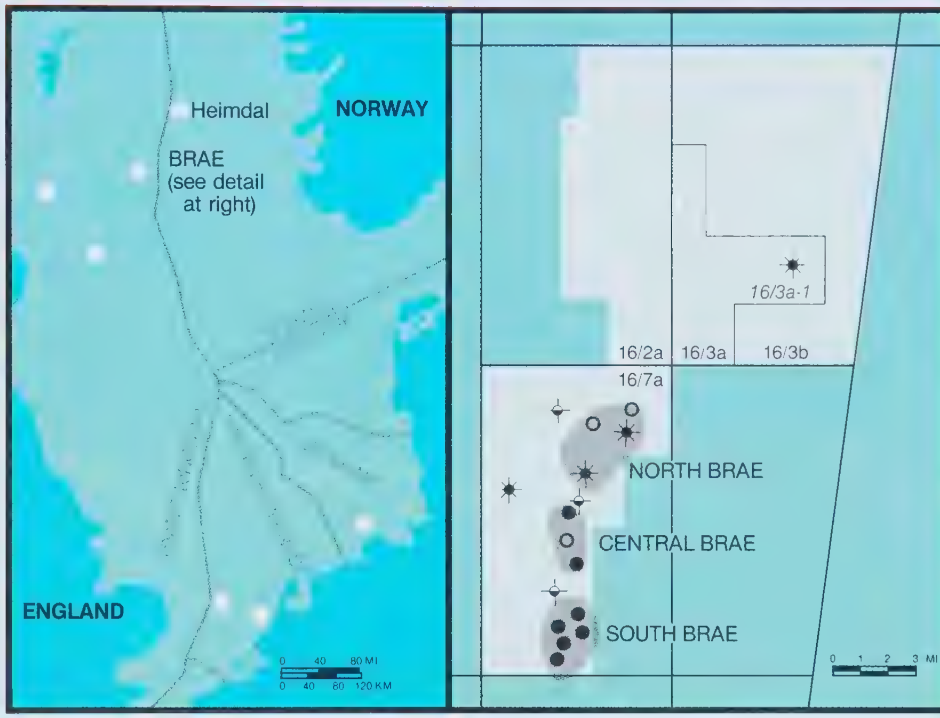
*Aladdin rig drilling the 16/3a-1 in the U.K. sector of the North Sea. Insert, drilling crew adding drill pipe.*



In another development in the area, a 15,000-foot exploratory well has been drilled on Block 16/3a, approximately nine miles northeast of the Brae discovery well. The drilling of this well has satisfied Bow Valley's work obligations with respect to Block 16/3b. On April 2, 1980, the operator announced that the well had successfully completed five tests from a 655-foot gross hydrocarbon section. Oil flows ranged from 2,545 to 3,817 barrels per day and gas volumes varied from 16,600 to 28,800 Mcf per day.

Bow Valley's share of all costs on the Blocks, other than Block 16/3b, is being advanced by wholly-owned subsidiaries of Kaiser Resources Ltd. and The Louisiana Land and Exploration Company as a non-recourse loan. Principal and interest is repayable from 70 percent of Bow Valley's share of the net proceeds of production after cash income taxes when and only if commercial production is obtained. At December 31, 1979, advances of $28,327,000 had been received.

Bow Valley is also a 19.6 percent participant in a group that was awarded Block 13/14 in 1977. The Block is in 350 feet of water, 100 miles north-northeast of Aberdeen, Scotland, and 40 miles from the Claymore and Piper producing fields. The British National Oil Corporation, the operator, has completed a marine seismic program and expects to drill the first exploratory well prior to April 1982.




Oil and Gas Wells ● Oil Wells Oil Show ○ Location Oil Fields

## Norway

In 1971 Bow Valley acquired a 15 percent interest in Block 25/4, in the Norwegian sector of the North Sea. The Block is approximately 100 miles off the Norwegian coast in about 375 feet of water. The first exploratory well was drilled in 1972 about 20 miles south of the Frigg field and discovered gas and condensate in the Paleocene. Two wells were subsequently drilled to delineate the reservoir known as the Heimdal field. It is anticipated that Heimdal gas, under contract to the British Gas Corporation, will be transported utilizing the Frigg transmission system, which commenced production during September 1977. The planned design of Heimdal's facilities, which is subject to government approval, will permit the daily production of 350,000 Mcf of gas and 10,000 barrels of condensate in 1984 at an estimated development cost of $760 million. In a study dated December 2, 1976, Elf Aquitaine Norge A/S, the operator, estimated reserves to be between 1.2 and 1.8 trillion cubic feet of gas and 39 million barrels of condensate. These estimates were confirmed by a study undertaken by the operator in September 1979. In the first half of 1980 the operator intends to drill the 25/4-5 well, a 13,800-foot well to test the Jurassic sand at a location which would also test the Paleocene sand in the southwest corner of the Heimdal field. Bow Valley's interest is eight percent in the Heimdal field and 15 percent in the remainder of the Block.

*A continuous miner at work in a Bow Valley coal mine in Harlan County, Kentucky. Insert, Clyde E. Goins, President of Bow Valley Coal Resources Inc*

## COAL

Bow Valley conducts underground bituminous coal mining operations on several contiguous tracts comprising 12,835 acres in Harlan County, Kentucky.

The non-union operations consist primarily of underground drift mining. The acreage contains workable seams of coal ranging from 30 to 60 inches in average thickness. Six of ten seams are being mined with nine mines in active production.

Bow Valley has 14 units of underground mining equipment. All of these units are of the type known as continuous sections, which combine the functions of cutting, drilling, blasting, and loading in a single machine. Eleven of the units are in use in the nine operating mines. The others are available as replacements in the event of breakdowns or for use in any new mine. Bow Valley has three coal processing facilities in operation. The coal is crushed underground at the mine, utilizing a belt feeder breaker, and is washed at adjacent plants. After this initial crushing and washing, coal is trucked or conveyed to one of the processing facilities where it may be further processed and blended with other coals for conveyance into designated areas for storage prior to loading into rail cars. Each plant has a rated input capacity of 5,000 tons per day and, on the basis of current coal specifications, has a rated clean coal capacity of 3,500 tons per day. The total capacity of the three plants at current operating rates and coal specifications is approximately 1,850,000 tons per year. An automatic coal weighing and loading system, completed in April 1979, together with a continuous sampler and a quality control laboratory, now provide the operation with reliable controls on the quality and quantity of coal shipped from the property. Bow Valley ships its coal in unit trains by the Louisville and Nashville Railroad which runs adjacent to its properties. Last year was the 11th consecutive year of increased coal shipments from the property.

Bow Valley now markets over 98 percent of its coal as steam coal under long term contracts. Electric Fuels Corporation, a wholly-owned subsidiary of Florida Power Corporation, has contracted to purchase 850,000 tons of coal per year for 15 years, and South Carolina Public Service Authority has contracted to purchase one million tons of coal annually for 20 years. Both contracts were effective January 1, 1980, and provide for periodic price escalations based upon increased costs and inflation. The mines and washing facilities are capable of producing clean coal product within the specifications required by the aforementioned coal contracts. These contracts provide for bonuses or penalties depending upon the quality delivered compared to the contracted specifications. During 1979 1,544,000 tons were sold compared with 1,241,000 tons in 1978.

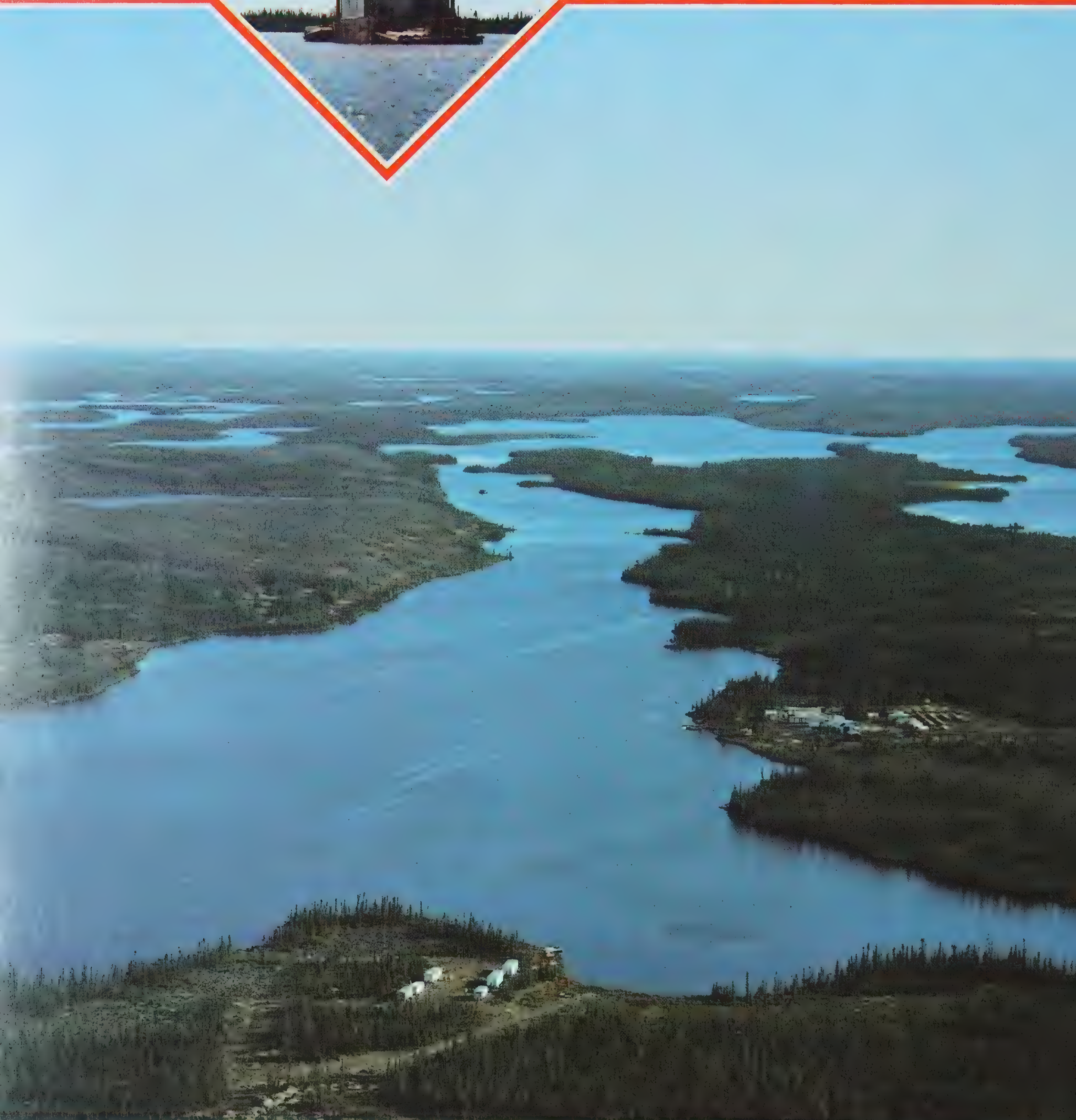
Estimated coal reserves at December 31, 1979, were 37,169,000 tons.

Capital expenditures in 1979 were $9.5 million and in 1980 are expected to be in excess of $9 million.

In January 1980 Bow Valley acquired a 20-year mining lease in Bell County, Kentucky, on approximately 8,000 acres about 30 miles to the west of the present Harlan County properties. Mine facilities capable of producing one million tons of coal per year are scheduled for completion in 1984. The South Carolina Public Service Authority has contracted to purchase 20 million tons with deliveries scheduled to begin at 100,000 tons in 1981, increasing to one million tons annually in 1986 and thereafter. Under this contract, Bow Valley's fixed costs are covered by a "take-or-pay" clause. For this property estimated coal reserves are 29,448,000 tons.

In February 1980 Bow Valley acquired an additional 4,000-acre ten-year mining lease contiguous with the eastern boundary of its existing Harlan County properties. It is anticipated that mining activity on the property will begin in 1981 should appropriate sales contracts be negotiated. For this property estimated coal reserves are 11,635,000 tons.

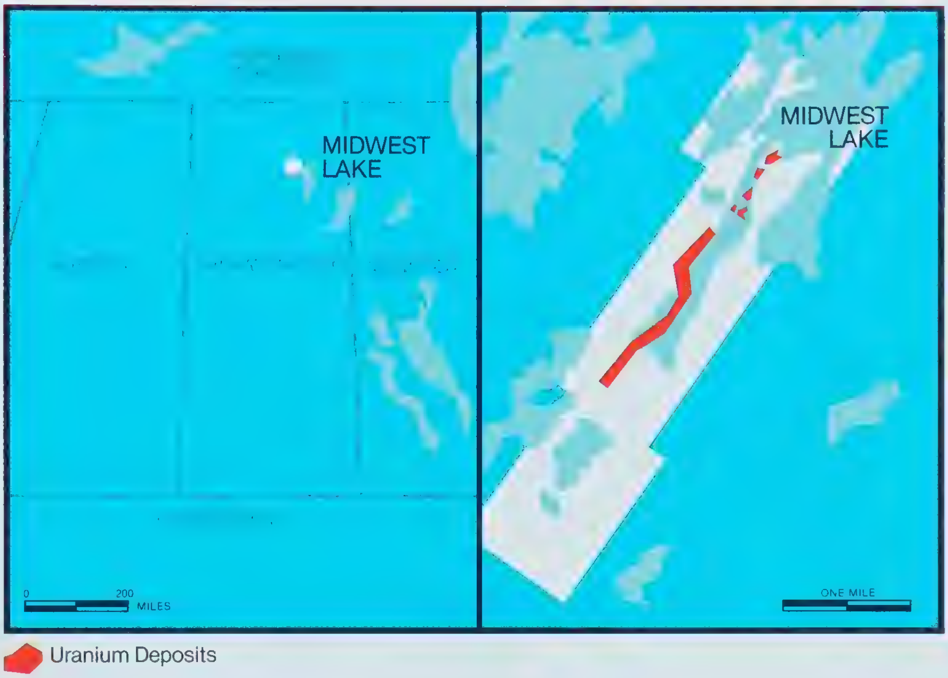
*Midwest Lake in northeastern Saskatchewan with the operator's base camp on the eastern shore. Insert, offshore coring unit on Midwest Lake.*



## URANIUM

Bow Valley, together with the operator Esso Resources Canada Limited, and other partners, has an interest in the Midwest Lake uranium deposit which was discovered in early 1978. A reserve study dated August 1979 estimated drill-indicated reserves at 56 million pounds of uranium oxide. In addition, Bow Valley has received another opinion dated January 1980 prepared by an independent consultant that the indicated reserves lie between 75 and 80 million pounds of uranium oxide. The operator has stated that sufficient uranium has been proven to justify a commercial mine. In addition, several of the core holes have encountered nickel, silver, and cobalt in various amounts. The discovery, largely under a shallow lake, is approximately 185 miles southeast of Uranium City, Saskatchewan, and 15 miles west of a uranium mine at Rabbit Lake. Bow Valley holds a 20 percent interest in the project which reduces to 12.5 percent after recovery of its initial investment.

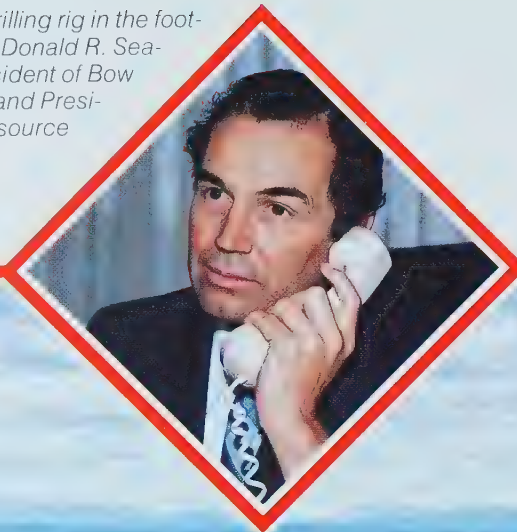
At December 31, 1979, the operator had completed the drilling of 339 core holes of which 192 encountered radioactive mineralization. Three core hole drilling rigs are operating to further explore and delineate the mineralized zone. Bow Valley expended $1,252,000 on the uranium program in 1979 and anticipates spending $2,541,000 in 1980.




Preliminary work has begun on designing the mining plan and milling process together with the required studies to ensure that these plans are consistent with current environmental regulations and socio-economic requirements. The cost of the mine and the mill is estimated by the operator to be in excess of $300 million, and the operator has indicated that the mine and the mill are expected to be producing uranium in the mid-1980s at a planned rate of approximately 4.4 million pounds of uranium oxide per year. Bow Valley's share of development costs will be in excess of $60 million.

Uranium products are primarily used as fuel for the commercial generation of electricity. Uranium oxide produced in Canada is marketed to customers in Canada and abroad. Eldorado Nuclear Limited, a Canadian Crown Corporation, is the sole refiner in Canada of uranium concentrate and converts it into uranium dioxide which is used as fuel for the Candu heavy-water reactor, and into uranium hexafluoride, which can be enriched to produce fuel for light-water reactors.

*A Bow Valley oilwell drilling rig in the foothills of Alberta. Insert, Donald R. Seaman, Senior Vice-President of Bow Valley Industries Ltd. and President of Bow Valley Resource Services Ltd.*



Bow Valley Resource Services Ltd. was formed in June 1977 to consolidate all the service and manufacturing activities of Bow Valley under one wholly-owned subsidiary company. Operations of the subsidiary are primarily related to the natural resource industry. Approximately 2,000 employees conduct operations administered in five groups: Oilwell Drilling, Oilfield Services, Diamond Drilling, Industrial Products, and Environmental Products.

## OILWELL DRILLING

Bow Valley has 48 oilwell drilling rigs, including 42 rigs in Canada and six rigs in the Appalachian area of the eastern United States.

During 1979 the Canadian rigs drilled 921 wells for 3,036,000 feet compared to 898 wells for 2,949,000 feet in 1978. The 1979 footage is estimated to be 11 percent of the total onshore footage drilled in Canada by the oilwell drilling industry. The high level of oilwell drilling activity in western Canada has been occasioned by industry investing increasingly large amounts in oil and gas exploration and development. Higher selling prices for hydrocarbons and Federal and Provincial Government incentives have been major factors in encouraging more active exploration programs. Bow Valley anticipates these favourable conditions will be maintained and, combined with an efficient and well-managed operation, should allow the Oilwell Drilling Group in western Canada to continue to earn record profits.

*Assembling an oilfield service rig in Bow Valley's manufacturing plant in Vancouver, British Columbia*

In the United States, Bow Valley's six-rig operation drilled 365,000 feet in 1979 compared to 429,000 feet in 1978. The reduced footage was because of increased competition and a reduction in market demand for natural gas in the Appalachian area. This operation is expected to continue to be profitable.

Capital expenditures in 1979 were $9.6 million and included four new

oilwell drilling rigs. In 1980 Bow Valley is proposing to spend approximately $34 million to expand its deep drilling capacity through the acquisition of nine additional drilling rigs. Four of the rigs, to be purchased in the United States, will be used to service the petroleum industry in the Rocky Mountain States. The remaining five rigs, to be built in Canada, will be added to Bow Valley's existing capacity for oilwell drilling services in western Canada. During 1980 Bow Valley expects to retire two shallow drilling rigs.

## OILFIELD SERVICES

Bow Valley provides services and supplies to the oil and gas industry through seven warehouses and stores in Alberta and British Columbia. The high level of oilfield activity in western Canada has been the major factor in the Oilfield Services Group earning record profits in 1979. During 1979 Bow Valley's helicopter operation was sold because of low profit margins and an opportunity to make a satisfactory profit on the disposal of the assets.

## DIAMOND DRILLING

Bow Valley conducts a contract drilling operation servicing the mining industry in Canada and the United States and operates a manufacturing plant which produces diamond bits, drills, and related equipment.

Bow Valley's 65 surface and underground units drilled 557,000 feet in 1979 compared to 761,000 feet in 1978. The reduction was because of increased competition and operating difficulties. New procedures and policies have been implemented regarding cost control and sales effort which should improve Bow Valley's performance. An active minerals exploration market, occasioned by improving metal prices, is expected to assist this division to make a marked recovery in 1980.

The Diamond Drilling Group's manufacturing division based in Vancouver participated in the resurgence of the mining industry and enjoyed a very successful year.

*Bow Valley's foundry operation in Vancouver, British Columbia.*

*Inserting industrial diamonds in a core hole drilling bit in Bow Valley's Vancouver plant.*

## INDUSTRIAL PRODUCTS

Bow Valley manufactures equipment for and sells supplies to the forest products, mining, and oil and gas industries. The manufacturing division based in Vancouver has 130,000 square feet of manufacturing space including a foundry, a steel fabrication shop, and a machine shop. A similar, but smaller, operation is conducted in Portland, Oregon.

The merchandising and marketing division sells supplies to various industries through six warehouses across Canada, while another division manufactures electromechanical controls and provides electrical services to industries in western Canada.

Operating profits continue to improve as management has reduced the volume of low-margin products and

has placed greater emphasis on the manufacture and sale of custom-made items, particularly to the sawmill industry, and specialized lines to the oil and gas industry. Plans are underway to expand the Vancouver plant facilities in 1980.

## ENVIRONMENTAL PRODUCTS

Bow Valley's two environmental products divisions manufacture and sell heating and air conditioning equipment and provide engineering services and instrumentation equipment relating to pollution control. The principal market area is western Canada.

The domestic and commercial heating and air conditioning units are manufactured in two plants in Edmonton and one in Toronto. Product lines include warm air furnaces and central air conditioning equipment for residential and commercial use and unit heaters and large engineered ventilating, heating, and air conditioning products for commercial and institutional application. Plant capacity is approximately 18,000 units per year as compared to 17,300 units actually produced in 1979. Bow Valley has placed a greater emphasis on the sale of commercial and institutional units because of higher profit margins and greater market demand. Residential units are more competitively priced and have been adversely affected by decreased housing starts.

*Assembling residential furnace units in Bow Valley's Edmonton plant.*

The pollution control division maintains offices, laboratory, and manufacturing facilities in Calgary and a sales and service office in Edmonton. During 1979 consulting and technical operations provided the majority of revenue as demand for services reflected the increasing level of economic activity in Alberta.

Bow Valley manufactured and sold 35 pollution control instruments in 1979 as compared to 20 units in 1978. Sales were both domestic and international, with the largest sales to the United States and Europe. Further growth is expected in these areas.

## Revenue and Operating Income

Bow Valley's revenue and operating income continued to show substantial gains in 1979.

The principal activities contributing to improved results were:

- Oil and Gas — Increased selling prices in Canada and the United States for oil and gas and commencement of oil sales in Abu Dhabi resulted in higher revenue and operating income.
- Coal — Bow Valley's coal operation, which was acquired with the Flying Diamond purchase in 1978, continues to benefit from greater customer demand and improved processing, quality control, and weighing and loading facilities.
- Oilwell Drilling — Revenue and operating income increased substantially with the demand for drilling equipment reflecting the high level of exploration and development activity in the Canadian and United States oil industry.

These improved results were partially offset by increased interest expense attributable to both higher interest rates and substantial bank debt incurred in acquiring the shares of Flying Diamond in 1978 and financing portions of Bow Valley's capital program. In addition, non-cash expenses increased sharply reflecting the added depreciation and depletion charges relating primarily to the Flying Diamond acquisition.

*Seated, William H. Tye, Senior Vice-President and Chief Financial Officer; standing, left-to-right, Trevor A. Legge, Vice-President and Treasurer; Robert J. Phibbs, Vice-President, Administration; and H. Keith Lazelle, Vice-President and Secretary.*

The following table provides details of results by operating segment:

| | Year Ended December 31 | | Year Ended May 31 | | |
|---|---|---|---|---|---|
| | 1979 | 1978 | 1978 | 1977 | 1976 |
| | | | ($ thousands) | | |
| Revenue | | | | | |
| Oil and Gas | $ 56,924 | $ 40,443 | $ 26,987 | $ 14,729 | $ 7,396 |
| Coal | 55,054 | 43,551 | 15,462 | — | — |
| Oilwell Drilling | 75,376 | 61,979 | 47,581 | 34,954 | 27,617 |
| Oilfield Services | 28,731 | 33,453 | 37,645 | 36,782 | 29,905 |
| Industrial Products | 30,190 | 27,915 | 25,608 | 25,353 | 24,320 |
| Diamond Drilling | 14,804 | 14,476 | 14,576 | 15,204 | 13,045 |
| Environmental Products | 14,192 | 10,228 | 10,260 | 9,139 | 6,451 |
| Other | 3,537 | 4,072 | 545 | — | — |
| General Corporate and Inter-Segment Eliminations | (3,160) | (3,570) | (3,939) | (4,446) | (5,406) |
| | $275,648 | $232,547 | $174,725 | $131,715 | $103,328 |

| | Year Ended December 31 | | Year Ended May 31 | | |
|---|---|---|---|---|---|
| | 1979 | 1978 | 1978 | 1977 | 1976 |
| | | | ($ thousands) | | |
| Operating Income | | | | | |
| Oil and Gas | $ 25,560 | $ 16,598 | $ 13,282 | $ 8,478 | $ 2,229 |
| Coal | 13,614 | 11,754 | 4,149 | — | — |
| Oilwell Drilling | 17,723 | 12,243 | 7,126 | 5,494 | 4,471 |
| Oilfield Services | 1,050 | (367) | 981 | 1,379 | 1,563 |
| Industrial Products | 2,303 | 1,953 | 596 | (523) | (321) |
| Diamond Drilling | (40) | (255) | (578) | 565 | 794 |
| Environmental Products | 1,525 | 915 | 1,310 | 882 | 401 |
| Other | 2,343 | 1,116 | 885 | (1,632) | (1,265) |
| Interest | (33,543) | (22,244) | (10,422) | (6,565) | (5,488) |
| Net Operating Income before Income Taxes | $ 30,535 | $ 21,713 | $ 17,329 | $ 8,078 | $ 2,384 |

**Capital Expenditures**

The following table summarizes Bow Valley's capital expenditures for the past five completed financial years (excluding the acquisition cost of Flying Diamond):

| | Year Ended December 31 | | Year Ended May 31 | | |
|---|---|---|---|---|---|
| | 1979 | 1978 | 1978 | 1977 | 1976 |
| | | | ($ thousands) | | |
| Oil and Gas | | | | | |
| Land Acquisition and Rental | $ 4,510 | $ 2,185 | $ 3,060 | $ 2,611 | $ 1,466 |
| Geological and Geophysical | 2,812 | 2,057 | 2,385 | 1,742 | 1,083 |
| Drilling | 23,186 | 26,674 | 21,365 | 15,545 | 11,700 |
| Production Equipment | 22,882 | 16,121 | 7,322 | 3,067 | 4,205 |
| | 53,390 | 47,037 | 34,132 | 22,965 | 18,454 |
| Coal | 9,495 | 14,063 | 489 | — | — |
| Uranium | 1,252 | 316 | 107 | 16 | 16 |
| Oilwell Drilling Equipment | 9,632 | 12,640 | 5,989 | 8,393 | 2,400 |
| Other Capital Assets | 4,260 | 11,628 | 10,313 | 3,105 | 3,950 |
| | $78,029 | $85,684 | $51,030 | $34,479 | $24,820 |

**Financial Position**

Bow Valley's source of funds during 1979 included $59 million cash flow from operations, $33 million from the issue of long term debt, $26 million from the sale of common shares, and a $6.6 million non-recourse loan for Brae.

Application of funds included $78 million gross expenditures on capital assets and debt retirement of $43 million.

The net increase in working capital for the year was $6.7 million and provided a year-end current position of $16.8 million.

## Summary of Significant Accounting Policies

These consolidated financial statements have been prepared by management in accordance with the accounting principles described below. Where necessary, management has made informed judgments and estimates in accounting for transactions which are not complete at the balance sheet date. In the opinion of management, these statements have been prepared within acceptable limits of materiality and are in accordance with Canadian generally accepted accounting principles appropriate in the circumstances.

*Principles of Consolidation*

The consolidated financial statements include Bow Valley Industries Ltd. and its subsidiaries ("Bow Valley") as well as Bow Valley's proportionate interest in partnerships, some of which are limited partnerships in which Bow Valley is the general partner.

*Foreign Currency Translation*

Bow Valley follows the method recommended by the Canadian Institute of Chartered Accountants for translating foreign currency transactions and accounts of foreign subsidiaries to Canadian dollars. Under this method:

- Monetary assets and liabilities (mortgages and accounts receivable, current liabilities, and long term debt) are translated at year-end rates.
- Non-monetary assets and liabilities (inventories, capital assets, deferred income taxes, and exploration and development advances) are translated at rates in effect on the dates of the transactions (historical rates).
- Most revenues and expenses are translated at average rates in effect during the year. Certain expenses relating to non-monetary assets are translated at historical rates.
- The resulting gains and losses are reflected immediately in the statement of income, except for unrealized translation gains and losses relating to long term debt and mortgages receivable which are amortized over their remaining terms.

Substantially all of the deferred unrealized exchange losses relate to long term debt repayable in U.S. funds by subsidiaries operating within the United States or whose major revenues are in U.S. currency.

*Capital Assets, Depreciation, and Depletion*

(a) Oil and Gas Properties and Equipment

The full cost method of accounting used by Bow Valley for oil and gas operations results in all costs of exploring for and developing oil and gas reserves being capitalized and charged against earnings as explained below. These costs are accumulated in various cost centres, of which the most significant are:

- Producing Cost Centres — Canada, excluding frontier areas north of 60°N and offshore; United States; and North Africa and the Middle East, including Abu Dhabi.
- Non-Producing Cost Centres — Frontier Canada; Europe, including the North Sea; and Southeast Asia and Australia.

Costs accumulated in producing cost centres are depleted using the unit of production method based upon estimated proved reserves of oil and gas. Depreciation of oil and gas well equipment is also calculated on the unit of production basis.

Expenditures in non-producing cost centres are amortized at the rate of ten percent annually on a straight-line basis until sufficient reserves are established to warrant economically commercial production (at present only Europe), at which time amortization ceases. If exploration activities are discontinued in a cost centre, the unamortized costs in that area are charged to depletion expense.

(b) Mining Properties and Equipment

All costs of exploring for and developing mineral and coal reserves which relate to specific properties are capitalized. Costs accumulated for productive properties are depleted using the unit of production method when production commences, based on proved recoverable reserves. Costs relating to properties which are proven to be unproductive or uneconomic are written off to depletion expense during the period when such event occurs. Mining and related equipment is depreciated by the straight-line method over the estimated useful life of the equipment.

(c) Oilwell Drilling Equipment

Oilwell drilling equipment is depreciated by the declining balance method at the rate of eight percent annually, based on an estimated 15-year life with a residual value of 30 percent.

(d) Other Capital Assets

Other capital assets are depreciated by various methods and at various rates designed to amortize the cost of the assets over their estimated useful lives.

*Capitalization of Interest*

Interest on debt specifically obtained for the construction or development of major capital assets is capitalized until the assets commence operations.

**Significant Differences between Canadian and United States Generally Accepted Accounting Principles:**

*Foreign Currency Translation*

The U.S. Financial Accounting Standards Board's Statement #8 requires that all unrealized foreign exchange translation gains and losses be reflected immediately in net income with no deferral for those relating to long term debt and mortgages receivable.

*Oil and Gas Properties and Equipment*

The U.S. Securities and Exchange Commission's full cost rules require the establishment of cost centres on a country-by-country basis and annual valuation of non-producing cost centres with no annual amortization unless a valuation loss is apparent.

*Reconciliation of Net Income and Retained Earnings*
*(thousands of Canadian dollars)*

| | 1979 | | 1978 | |
|---|---|---|---|---|
| | **Net Income** | **Retained Earnings** | Net Income (Unaudited) | Retained Earnings |
| In accordance with Canadian generally accepted accounting principles, as reported | **$16,367** | **$40,896** | $14,342 | $25,820 |
| Add (deduct) adjustments for: | | | | |
| Foreign currency translation | **3,399** | **(3,981)** | (7,380) | (7,380) |
| Oil and gas properties | **147** | **(1,327)** | (764) | (1,474) |
| In accordance with United States generally accepted accounting principles | **$19,913** | **$35,588** | $ 6,198 | $16,966 |
| Primary earnings per share, in accordance with United States generally accepted accounting principles (Canadian dollars) | **$ 1.80** | | $ 0.58 | |

# Consolidated Balance Sheet

*(Canadian Dollars)*

| | December 31 1979 | December 31 1978 |
|---|---|---|
| **Assets** | | |
| Current Assets | | |
| Accounts receivable | **$ 75,590,000** | $ 47,722,000 |
| Inventories, at lower of cost or net realizable value | **22,068,000** | 19,824,000 |
| Prepaid expenses | **2,081,000** | 2,572,000 |
| | **99,739,000** | 70,118,000 |
| Capital Assets, at cost (Note 3) | **453,768,000** | 390,895,000 |
| Less accumulated depreciation and depletion | **93,148,000** | 66,469,000 |
| | **360,620,000** | 324,426,000 |
| Other Assets | | |
| Real estate held for resale, at cost | **3,995,000** | 4,227,000 |
| Mortgages receivable | **4,033,000** | 4,794,000 |
| Deferred charges and sundry assets, at cost less amounts amortized (Note 4) | **11,926,000** | 14,532,000 |
| | **19,954,000** | 23,553,000 |
| | **$480,313,000** | $418,097,000 |

*Approved by the Board*

*Director*

*Director*

| | December 31 1979 | 1978 |
|---|---|---|
| **Liabilities** | | |
| Current Liabilities | | |
| Bank indebtedness and acceptances (secured — $3,846,000) | **$ 13,255,000** | $ 11,229,000 |
| Accounts payable and accrued | **46,109,000** | 35,956,000 |
| Long term debt due within one year | **23,584,000** | 12,882,000 |
| | **82,948,000** | 60,067,000 |
| Long Term Debt (Note 5) | **232,034,000** | 244,027,000 |
| Exploration and Development Advances (Note 6) | **28,327,000** | 21,770,000 |
| Other Liabilities | **1,689,000** | 2,689,000 |
| Deferred Income Taxes | **39,374,000** | 34,793,000 |
| Shareholders' Equity (Note 7) | | |
| Redeemable preferred shares | **1,590,000** | 11,254,000 |
| Common shares — 11,485,089 shares issued and outstanding (1978 — 9,794,532) | **53,455,000** | 17,677,000 |
| Retained earnings | **40,896,000** | 25,820,000 |
| | **95,941,000** | 54,751,000 |
| | **$480,313,000** | $418,097,000 |

# Consolidated Statement of Income

*(Canadian Dollars)*

| | Year Ended December 31 1979 | 1978 (Unaudited) |
|---|---|---|
| **Revenue** | | |
| Service and manufacturing | **$156,259,000** | $143,531,000 |
| Oil, gas, and coal, less royalties | **110,196,000** | 83,249,000 |
| Other | **9,193,000** | 5,767,000 |
| | **275,648,000** | 232,547,000 |
| **Expenses** | | |
| Direct costs | **155,665,000** | 139,134,000 |
| Depreciation and depletion | **30,108,000** | 25,570,000 |
| General and administrative | **25,797,000** | 23,886,000 |
| Interest on long term debt (Note 8) | **31,374,000** | 20,746,000 |
| Other interest | **2,169,000** | 1,498,000 |
| | **245,113,000** | 210,834,000 |
| **Income Before Income Taxes** | **30,535,000** | 21,713,000 |
| **Income Taxes** (Note 9) | | |
| Current | **239,000** | 4,541,000 |
| Deferred | **13,929,000** | 2,830,000 |
| | **14,168,000** | 7,371,000 |
| **Net Income** | **$ 16,367,000** | $ 14,342,000 |
| **Net Income Per Common Share,** based on the weighted average number of shares outstanding of 10,961,205 (1978 — 9,745,943) | | |
| Basic | **$1.48** | $1.41 |
| Fully diluted | **$1.47** | $1.36 |

# Consolidated Statement of Retained Earnings

*(Canadian Dollars)*

| | Year Ended December 31 | |
|---|---|---|
| | **1979** | 1978 (Unaudited) |
| Retained Earnings at Beginning of Year | **$25,820,000** | $12,888,000 |
| Add | | |
| Net income | **16,367,000** | 14,342,000 |
| Contributed surplus arising on redemption of series A preferred shares | **1,000** | 15,000 |
| | **42,188,000** | 27,245,000 |
| Deduct | | |
| Dividends paid | | |
| 5½% preferred shares series A | **69,000** | 71,000 |
| 5% second preference shares | **126,000** | 500,000 |
| Common shares ($0.10 per share; 1978 — $0.0875) | **1,097,000** | 854,000 |
| | **1,292,000** | 1,425,000 |
| Retained Earnings at End of Year | **$40,896,000** | $25,820,000 |

# Consolidated Statement of Changes in Financial Position

*(Canadian Dollars)*

| | Year Ended December 31 | |
|---|---|---|
| | **1979** | 1978 (Unaudited) |
| Source of Working Capital | | |
| From operations | | |
| Net income | **$ 16,367,000** | $ 14,342,000 |
| Add non-cash items | **42,592,000** | 28,241,000 |
| Cash flow from operations | **58,959,000** | 42,583,000 |
| Long term debt issued | **33,276,000** | 185,071,000 |
| Exploration and development advances | **6,557,000** | 5,658,000 |
| Share capital issued | **26,118,000** | 1,139,000 |
| Other | **4,224,000** | 5,549,000 |
| | **129,134,000** | 240,000,000 |
| Application of Working Capital | | |
| Additions to capital assets | | |
| Oil, gas, and mining properties and equipment | **64,137,000** | 61,416,000 |
| Drilling and other equipment | **13,892,000** | 24,268,000 |
| | **78,029,000** | 85,684,000 |
| Less proceeds of disposals | **14,372,000** | 7,513,000 |
| | **63,657,000** | 78,171,000 |
| Acquisition of Flying Diamond Oil Corporation | **—** | 135,005,000 |
| Repayment of long term debt | **42,758,000** | 19,805,000 |
| Dividends paid | **1,292,000** | 1,425,000 |
| Other | **14,687,000** | 5,727,000 |
| | **122,394,000** | 240,133,000 |
| Increase (Decrease) in Working Capital | **6,740,000** | (133,000) |
| Working Capital at Beginning of Year | **10,051,000** | 10,184,000 |
| Working Capital at End of Year | **$ 16,791,000** | $ 10,051,000 |
| Cash Flow From Operations Per Common Share, based on the weighted average number of common shares outstanding | | |
| Basic | **$5.36** | $4.31 |
| Fully diluted | **$5.31** | $4.02 |

# Notes to Consolidated Financial Statements

December 31, 1979 *(Canadian Dollars)*

**1. Comparative Financial Information**

During 1978 Bow Valley changed its year end from May 31, 1978, to December 31, 1978. Accordingly, calendar 1978 encompassed two fiscal year ends (the twelve months ended May 31 and the seven months ended December 31), each of which was audited and reported upon in last year's Annual Report to Shareholders. Management's estimate of the results for calendar 1978 was also included in last year's Annual Report, but not audited. Management believes that these estimates are the only figures sufficiently informative for comparison with 1979.

**2. Change in Accounting Estimate**

Based on operating performance and physical condition, Bow Valley changed its depreciation rate for oilwell drilling rigs from 20 percent declining balance to eight percent declining balance, effective January 1, 1979. As a result, net income was increased by $1,489,000 (14 cents per share) in 1979.

**3. Capital Assets**

| | **1979** | | 1978 | |
|---|---|---|---|---|
| | **Cost** | **Net Book Value** | Cost | Net Book Value |
| | | *($ thousands)* | | |
| Oil and gas properties and equipment, by cost centre | | | | |
| Canada, excluding frontier areas | **$ 80,159** | **$ 55,116** | $ 67,775 | $ 47,517 |
| United States | **120,728** | **103,871** | 107,679 | 99,959 |
| North Africa and the Middle East | **43,722** | **40,935** | 29,026 | 27,865 |
| Europe, including the North Sea | **41,983** | **41,554** | 33,516 | 33,123 |
| Other | **8,737** | **5,387** | 5,137 | 2,439 |
| | **295,329** | **246,863** | 243,133 | 210,903 |
| Mining properties and equipment | **81,956** | **69,542** | 71,209 | 65,830 |
| Oilwell drilling equipment | **52,790** | **30,512** | 44,201 | 25,403 |
| Other capital assets | **23,693** | **13,703** | 32,352 | 22,290 |
| | **$453,768** | **$360,620** | $390,895 | $324,426 |

**4. Deferred Charges and Sundry Assets**

Included in this item are unrealized foreign exchange losses of $3,981,000 (1978 — $7,380,000), which have been deferred for subsequent amortization.

**5. Long Term Debt**

| | **1979** | 1978 |
|---|---|---|
| | *($ thousands)* | |
| Bank loans, secured by various oil and gas properties and other capital assets, including U.S. $109,572,000 | **$236,068** | $234,992 |
| Other, including U.S. $15,736,000 | **19,550** | 21,917 |
| | **255,618** | 256,909 |
| Less amount due within one year | **23,584** | 12,882 |
| | **$232,034** | $244,027 |

The aggregate repayments on long term debt in each of the next five years are: 1980 — $23,584,000; 1981 — $27,006,000; 1982 — $35,690,000; 1983 — $33,864,000; and 1984 — $34,432,000. Bank loans bear interest based on prevailing bank prime rates and provide for repayment over varying periods of time extending to 1990; however, the banks reserve the right to call loans approximating $208 million on demand.

At December 31, 1979, Bow Valley had unused lines of credit approximating $38 million.

**6. Exploration and Development Advances**

Bow Valley receives interest bearing, non-recourse advances in connection with the exploration and development of United Kingdom Blocks 16/2a, 16/3a and 16/7a (Brae) in the North Sea. Interest rates are 6¾ percent on the first U.S. $40 million of advances and will be at prevailing market rates relating to the lenders' cost and source of financing on the remaining advances. The advances and interest are repayable solely out of 70 percent of Bow Valley's share of net proceeds of production after cash income taxes from these Blocks when commercial production commences. The United Kingdom authorities have approved the development plans for the South Brae field; production is expected to commence in 1983.

## 7. Shareholders' Equity

(a) REDEEMABLE PREFERRED SHARES

| | 1979 | 1978 |
|---|---|---|
| | ($ thousands) | |
| 5½% cumulative redeemable preferred shares series A with a $20 par value | | |
| Authorized and issued — 100,000 shares | | |
| Outstanding — 62,500 shares (1978 — 62,700) | **$ 1,250** | $ 1,254 |
| 5% cumulative redeemable second preference shares with a $100 par value | | |
| Authorized and issued — 100,000 shares | | |
| Outstanding — 3,400 shares (1978 — 100,000) | **340** | 10,000 |
| Class B preferred shares with a $60 par value | | |
| Authorized — 1,000,000 shares | | |
| Outstanding — Nil | **—** | — |
| | **$ 1,590** | $11,254 |

The series A preferred shares and the second preference shares are redeemable at any time at $21 and $105, respectively, per share plus accumulated unpaid dividends, for an aggregate redemption price of $1,670,000. Upon liquidation, dissolution, or winding up, the series A preferred shares rank prior to the second preference shares, with both ranking prior to the common shares.

The second preference shares were convertible prior to April 2, 1979, into 6⅔ common shares each; 96,600 shares were converted into 644,007 common shares during 1979.

(b) COMMON SHARES

Bow Valley is authorized to issue up to 14,000,000 no par value common shares. Of the authorized but unissued common shares, 233,300 were reserved at December 31, 1979, for options granted, or available for granting, to officers and employees of Bow Valley under the terms of Bow Valley's Incentive Stock Option Plan. At December 31, 1979, 121,790 options were outstanding with option prices ranging from $7.54 to $14.67 per share for a potential consideration of $1,230,000. Outstanding options are exercisable within five years from the date of grant, to June 7, 1983.

Details of common shares issued during 1978 and 1979 are:

| | 1979 | | 1978 | |
|---|---|---|---|---|
| | **Shares Issued** | **Consideration** | Shares Issued | Consideration |
| | | ($ thousands) | | ($ thousands) |
| Issued for cash | | | | |
| Employee stock options | **46,550** | **$ 508** | 114,960 | $ 1,139 |
| Private placement at $26 per share, less expenses of $390,000 | **1,000,000** | **25,610** | — | — |
| | **1,046,550** | **26,118** | 114,960 | 1,139 |
| Conversion of second preference shares | **644,007** | **9,660** | — | — |
| | **1,690,557** | **$35,778** | 114,960 | $ 1,139 |

## 8. Interest Capitalized

During the year, interest of $3,810,000 was capitalized (1978 — $2,772,000).

## 9. Income Taxes

Total income tax provisions have varied from the Canadian corporate tax rate of 47 percent, as follows:

| | 1979 | | 1978 (Unaudited) | |
|---|---|---|---|---|
| | **Amount** | **%** | Amount | % |
| | ($ thousands) | | ($ thousands) | |
| Income taxes at the Canadian corporate tax rate | **$14,351** | **47%** | $10,205 | 47% |
| Add (deduct) | | | | |
| Effect of higher foreign tax rates on foreign earned income | **1,692** | **5** | — | — |
| Crown charges disallowed for tax purposes | **5,496** | **18** | 4,782 | 22 |
| Resource profits rate reductions | **(5,519)** | **(18)** | (6,499) | (30) |
| Provincial resource industry rebates | **(1,425)** | **(5)** | (1,443) | (7) |
| Other | **(427)** | **(1)** | 326 | 2 |
| Actual income tax provision | **$14,168** | **46%** | $ 7,371 | 34% |

No taxes have been provided on the undistributed earnings of foreign subsidiaries, since management believes that such earnings will not be distributed in the foreseeable future.

## 10. Information by Industry Segment and Geographic Area

The following tables provide an analysis of Bow Valley's:

- Revenue, operating income (income before income taxes), and assets by industry segment and geographic area.
- Depreciation and depletion expense and capital expenditures by industry segment.

Industry Segment *($ thousands)*

| | 1979 | | | | |
|---|---|---|---|---|---|
| | **Revenue** | **Depreciation and Depletion** | **Operating Income** | **Assets** | **Capital Expenditures** |
| Oil and Gas | **$ 56,924** | **$ 16,202** | **$ 25,560** | **$280,444** | **$ 53,821** |
| Coal | **55,054** | **7,004** | **13,614** | **75,922** | **9,495** |
| Oilwell Drilling | **75,376** | **5,113** | **17,723** | **59,965** | **10,339** |
| Oilfield Services | **28,731** | **636** | **1,050** | **11,402** | **1,015** |
| Industrial Products | **30,190** | **371** | **2,303** | **15,872** | **485** |
| Other | **32,533** | **638** | **3,613** | **29,875** | **2,524** |
| | **278,808** | **29,964** | **63,863** | **473,480** | **77,679** |
| General corporate | **6,247** | **144** | **215** | **6,833** | **350** |
| Interest | **—** | **—** | **(33,543)** | **—** | **—** |
| Inter-segment eliminations | **(9,407)** | **—** | **—** | **—** | **—** |
| | **$275,648** | **$ 30,108** | **$ 30,535** | **$480,313** | **$ 78,029** |

**Industry Segment (continued)**

| | 1978 (Unaudited) | | | | |
|---|---|---|---|---|---|
| | Revenue | Depreciation and Depletion | Operating Income | Assets | Capital Expenditures |
| Oil and Gas | $ 40,443 | $ 12,736 | $ 16,598 | $226,936 | $ 47,799 |
| Coal | 43,551 | 5,335 | 11,754 | 66,715 | 14,063 |
| Oilwell Drilling | 61,979 | 5,324 | 12,243 | 51,816 | 12,912 |
| Oilfield Services | 33,453 | 1,095 | (367) | 20,916 | 8,856 |
| Industrial Products | 27,915 | 380 | 1,953 | 15,000 | 120 |
| Other | 28,776 | 618 | 2,909 | 25,856 | 937 |
| | 236,117 | 25,488 | 45,090 | 407,239 | 84,687 |
| General corporate | 4,032 | 82 | (1,133) | 10,858 | 997 |
| Interest | — | — | (22,244) | — | — |
| Inter-segment eliminations | (7,602) | — | — | — | — |
| | $232,547 | $ 25,570 | $ 21,713 | $418,097 | $ 85,684 |

Substantially all of the coal is sold under long term contracts to the Florida Power Company and the South Carolina Public Service Authority.

Geographic Area *($ thousands)*

| | **1979** | | | 1978 (Unaudited) | | |
|---|---|---|---|---|---|---|
| | **Revenue** | **Operating Income** | **Assets** | Revenue | Operating Income | Assets |
| Canada | **$166,095** | **$ 38,524** | **$159,760** | $147,945 | $ 28,190 | $141,292 |
| United States | **95,750** | **20,482** | **216,475** | 81,338 | 17,720 | 197,712 |
| United Kingdom | **—** | **—** | **36,759** | — | — | 27,600 |
| Abu Dhabi | **8,703** | **5,722** | **45,004** | — | — | 24,200 |
| Other | **—** | **(865)** | **15,482** | — | (820) | 16,435 |
| | **270,548** | **63,863** | **473,480** | 229,283 | 45,090 | 407,239 |
| General corporate | **6,247** | **215** | **6,833** | 4,032 | (1,133) | 10,858 |
| Interest | **—** | **(33,543)** | **—** | — | (22,244) | — |
| Inter-area eliminations | **(1,147)** | **—** | **—** | (768) | | — |
| | **$275,648** | **$ 30,535** | **$480,313** | $232,547 | $ 21,713 | $418,097 |

## 11. Quarterly Financial Information (Unaudited)

| | Year Ended December 31 | |
|---|---|---|
| | **1979** | 1978 |
| **Revenue** *($ thousands)* | | |
| First quarter | **$ 61,765** | $ 54,185 |
| Second quarter | **56,673** | 54,523 |
| Third quarter | **74,589** | 59,385 |
| Fourth quarter | **82,621** | 64,454 |
| | **$275,648** | $232,547 |
| **Net Income** *($ thousands)* | | |
| First quarter | **$ 3,532** | $ 2,143 |
| Second quarter | **1,403** | 4,975 |
| Third quarter | **4,835** | 3,315 |
| Fourth quarter | **6,597** | 3,909 |
| | **$ 16,367** | $ 14,342 |
| **Net Income Per Common Share** | | |
| First quarter | **$0.35** | $0.20 |
| Second quarter | **0.11** | 0.50 |
| Third quarter | **0.43** | 0.32 |
| Fourth quarter | **0.59** | 0.39 |
| | **$1.48** | $1.41 |

The change in accounting estimate explained in Note 2 was adopted in the fourth quarter of 1979 with effect from January 1, 1979. Accordingly, the net income and per common share information for the first three quarters of 1979 have been revised from that previously reported.

## 12. Outstanding Litigation

Bow Valley is a defendant in the following lawsuits:

(a) On August 16, 1977, an action was commenced in the United States District Court for the District of Utah, Central Division, by Major Oil Corporation against Flying Diamond Oil Corporation ("Flying Diamond") and the Department of Energy. The complaint alleges that in 1975 Flying Diamond overcharged the plaintiff approximately U.S. $250,000 in relation to the then lawful prices for crude oil as filed by the U.S. Federal Energy Administration; that Flying Diamond failed to perform under an oil supply contract resulting in additional loss to the plaintiff of U.S. $150,000; and that Flying Diamond used oppressive and unlawful methods in collecting the alleged unlawful overcharges, resulting in damages to the plaintiff in excess of U.S. $17 million, including U.S. $15 million representing the discounted value of lost profits. Discovery procedures have not yet been completed. However, in the opinion of legal counsel representing Bow Valley in this action, the recovery of lost profits of U.S. $15 million by Major Oil Corporation is not likely.

(b) On December 23, 1977, an action was filed in the United States District Court for the Southern District of New York by the plaintiff, Sol Levine, against Flying Diamond, H. P. McLish, Gary F. Sprouse, and Harold U. Zerbe. The complaint alleges violations of the Securities Act of 1933 and the Securities Exchange Act of 1934 in connection with the offer and sale to the plaintiff of interests in nine limited partnerships formed by Flying Diamond. In addition, the complaint alleges that Flying Diamond, among other things, breached the limited partnership agreements and fiduciary duties and violated the General Business Law of the State of New York. The plaintiff seeks, among other things, damages in excess of U.S. $2.3 million, an accounting, reformation of one of the limited partnership agreements, the employment of a receiver to operate the limited partnerships which are the subject of the lawsuit, and punitive damages in the amount of U.S. $500,000. Legal counsel representing Bow Valley and the other defendants in this action have advised that such defendants, in their answers, have denied the substantive allegations in the complaint and have asserted various affirmative defences and that discovery procedures have not yet been completed.

(c) On October 12, 1979, an action was filed in the United States District Court for the Southern District of New York by Arthur D. Leidesdorf against Bow Valley Exploration (U.S.) Inc., H. P. Mclish, Gary F. Sprouse, and William C. Sprouse. The compaint alleges violations of the United States securities laws in connection with the sale by the plaintiff in 1976 to Bow

Valley of interests in oil and gas limited partnerships sponsored by Bow Valley. In addition, the complaint alleges that Bow Valley, among other things, breached the limited partnership agreements and fiduciary duties. The plaintiff seeks damages in excess of U.S. $100,000, an accounting, rescission of the sale of partnership interests, conveyance of oil and gas properties, and punitive damages in the amount of U.S. $1 million. Legal counsel representing Bow Valley and the other defendants have advised that such defendants, in their answers, have denied the substantive allegations in the complaints and have asserted affirmative defences and that discovery procedures have not yet been completed.

(d) On August 14, 1978, an action was commenced in the United States District Court for the Southern District of New York by the plaintiff, Harvey Greenfield, against Flying Diamond, Bow Valley Industries Ltd., Bow Valley Exploration (U.S.) Inc., Holmes P. McLish, and Gary F. Sprouse. The plaintiff purports to represent all stockholders of Flying Diamond as of March 3, 1978, and seeks damages on their behalf. The compaint alleges violation of the Securities Exchange Act of 1934 and state law and seeks judgment for damages sustained, punitive damages, and plaintiff's costs in prosecuting the suit. The complaint alleges, among other things, inadequate disclosure relating to the value of the Flying Diamond shares. Legal counsel representing Bow Valley and the other defendants have advised that they believe that the possibility that the outcome of this action will cause a material loss to Bow Valley is remote.

(e) On July 17, 1979, an action was instituted in the Federal District Court for the Eastern District of Kentucky by the plaintiffs, Lindsey and Elliott, against Bow Valley Coal Resources Inc. The plaintiffs claim U.S. $5 million in damages and U.S. $5 million in punitive damages for breach of an operating agreement for oil and gas wells. An answer has been filed contesting the plaintiffs' claim. Legal counsel representing Bow Valley in this action have indicated that Bow Valley will not incur a material loss as a result of this claim.

These lawsuits relate to Flying Diamond's operations prior to its acquisition by Bow Valley or to the acquisition process itself. Settlements, if any, will be considered as additional Flying Diamond purchase consideration and allocated to the capital assets acquired.

# Auditors' Report

To the Shareholders of BOW VALLEY INDUSTRIES LTD.

We have examined the consolidated balance sheet of Bow Valley Industries Ltd. as at December 31, 1979, and the consolidated statements of income, retained earnings, and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1979, and the results of its operations and the changes in its financial position for the year then ended in accordance with Canadian generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Price Waterhouse & Co.

*Chartered Accountants*

Calgary, Alberta
February 15, 1980

# Financial Summary

(Thousands of Canadian dollars, except for per share amounts)

| | Year Ended December 31 | | Seven Months Ended December 31 | Year Ended May 31 | | |
|---|---|---|---|---|---|---|
| | 1979 | 1978 | 1978 | 1978 | 1977 | 1976 |
| Revenue | $275,648 | $232,547 | $143,775 | $174,725 | $131,715 | $103,328 |
| Expenses | | | | | | |
| Direct costs | 155,665 | 139,134 | 85,088 | 113,355 | 94,366 | 76,207 |
| Depreciation and depletion | 30,108 | 25,570 | 15,341 | 15,674 | 7,987 | 6,270 |
| General and administrative | 25,797 | 23,886 | 14,743 | 17,945 | 14,719 | 12,978 |
| Interest on long term debt | 31,374 | 20,746 | 14,349 | 9,029 | 5,190 | 4,138 |
| Other interest | 2,169 | 1,498 | 1,016 | 1,393 | 1,375 | 1,351 |
| | 245,113 | 210,834 | 130,537 | 157,396 | 123,637 | 100,944 |
| Income Before Income Taxes | 30,535 | 21,713 | 13,238 | 17,329 | 8,078 | 2,384 |
| Income Taxes | | | | | | |
| Current | 239 | 4,541 | 3,615 | 1,437 | 1,240 | 146 |
| Deferred | 13,929 | 2,830 | 754 | 5,003 | 2,060 | 1,263 |
| | 14,168 | 7,371 | 4,369 | 6,440 | 3,300 | 1,409 |
| Net Income | 16,367 | 14,342 | 8,869 | 10,889 | 4,778 | 975 |
| Deduct — Preferred and preference share dividend requirements | 195 | 571 | 429 | 574 | 578 | 581 |
| Net Income Applicable to Common Shares | $ 16,172 | $ 13,771 | $ 8,440 | $ 10,315 | $ 4,200 | $ 394 |
| Weighted average number of shares outstanding (thousands) | 10,961 | 9,746 | 9,779 | 9,686 | 9,667 | 9,589 |
| PER COMMON SHARE | | | | | | |
| Net Income | $ 1.48 | $ 1.41 | $ 0.86 | $ 1.06 | $ 0.43 | $ 0.04 |
| Dividends per share | | | | | | |
| Common | $ 0.10 | $ 0.0875 | $ 0.05 | $ 0.0625 | $ 0.05 | $ 0.05 |
| Preferred, series A | $ 1.10 | $ 1.10 | $ 0.64 | $ 1.10 | $ 1.10 | $ 1.10 |
| Second preference | $ 5.00 | $ 5.00 | $ 2.92 | $ 5.00 | $ 5.00 | $ 5.00 |

## Shareholders Information

### Stock Price

The following table indicates the quarterly high bid and low bid prices for the common shares of Bow Valley on The Toronto Stock Exchange for the last two years:

| | 1979 | | 1978 | |
|---|---|---|---|---|
| | High | Low | High | Low |
| First Quarter | $28⅛ | $24 | $13½ | $10 1/16 |
| Second Quarter | 31½ | 28½ | 15 15/16 | 12 9/16 |
| Third Quarter | 43½ | 31¾ | 24½ | 14¾ |
| Fourth Quarter | 45⅞ | 34 | 24¼ | 15⅜ |

**Common Shareholder Distribution**
December 31, 1979

| | Number of Shares | Percent |
|---|---|---|
| Canada | 6,814,716 | 59.3 |
| United States | 4,456,812 | 38.8 |
| Other | 213,561 | 1.9 |
| | 11,485,089 | 100.0 |

# Corporate Information

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## Directors

FREDERIC J. AHERN, Vice-President, Baldwin-United Corporation, Cincinnati

R. GUY GODBOUT, President, Les Industries Valcartier Inc., Montreal

JAMES S. GRAHAM, Industrialist, Vancouver

J. RICHARD HARRIS, President, Bow Valley Industries Ltd., Calgary

WILLIAM A. HOWARD, QC, Barrister and Solicitor, Calgary

E. LEO KOLBER, President, Cemp Investments Ltd., Montreal

BYRON J. SEAMAN, Vice-Chairman of the Board, Bow Valley Industries Ltd., Calgary

DARYL K. SEAMAN, Chairman of the Board, Bow Valley Industries Ltd., Calgary

DONALD R. SEAMAN, Senior Vice-President, Bow Valley Industries Ltd., Calgary

D'ALTON L. SINCLAIR, Financial Consultant, Toronto

## Executive Officers

DARYL K. SEAMAN, Chairman of the Board and Chief Executive Officer

BYRON J. SEAMAN, Vice-Chairman of the Board

J. RICHARD HARRIS, President and Chief Operating Officer

DONALD R. SEAMAN, Senior Vice-President

WILLIAM H. TYE, Senior Vice-President and Chief Financial Officer

FREDERIC J. WELLHAUSER, Senior Vice-President

H. KEITH LAZELLE, Vice-President and Secretary

TREVOR A. LEGGE, Vice-President and Treasurer

ROBERT J. PHIBBS, Vice-President, Administration

PHILIP R. LAWTON, Controller

## SENIOR PERSONNEL

### Bow Valley Exploration

C. R. DE LUCA, General Manager — United States

A. L. FLOOD, General Manager — Southeast Asia

A. J. GOTTLIEB, General Manager — Canada

C. A. RANDLE, General Manager — Europe, Africa, Middle East

### Bow Valley Resource Services Ltd.

W. C. HAY, Group Vice-President — Oilwell Drilling

R. E. HINDSON, Group Vice-President — Diamond Drilling

A. M. PARENT, Group Vice-President — Industrial Products

D. G. THURSTON, Group Vice-President — Environmental Products

## Head Office

1800, 321 Sixth Avenue SW, Calgary T2P 2V8
Telephone: 231-1211 Telex: 24692

## Foreign Offices

BOW VALLEY EXPLORATION (U.S.) INC.
1700 Broadway, Denver, Colorado 80290
Telephone: 861-4366

BOW VALLEY EXPLORATION (U.K.) LIMITED
Windsor House, 50 Victoria Street, London
SW1H 0NW
Telephone: 255-5421 Telex: 23688

BOW VALLEY EXPLORATION (SINGAPORE) PRIVATE LIMITED
1406-1411 Tower Block, Goldhill Plaza, Newton Road, Singapore 11
Telephone: 252-2160 Telex: 8726328

## Transfer Agents

Common Stock
GUARANTY TRUST COMPANY OF CANADA
Calgary, Toronto, and Vancouver
THE BANK OF NEW YORK, New York

Preferred Stock, Series A
THE ROYAL TRUST COMPANY
Calgary, Winnipeg, Toronto, and Montreal

Second Preference Shares
THE ROYAL TRUST COMPANY, Calgary

## Registrars

Common Stock
GUARANTY TRUST COMPANY OF CANADA
Calgary, Toronto, and Vancouver
THE BANK OF NEW YORK, New York

Preferred Stock, Series A
GUARANTY TRUST COMPANY OF CANADA
Calgary, Winnipeg, Toronto, and Montreal

Second Preference Shares
THE ROYAL TRUST COMPANY, Calgary

## Stock Exchange Listings — Common Shares

Toronto Stock Exchange
American Stock Exchange
London Stock Exchange (Section 163 (1)E)

## Auditor

PRICE WATERHOUSE & CO.

## Legal Counsel

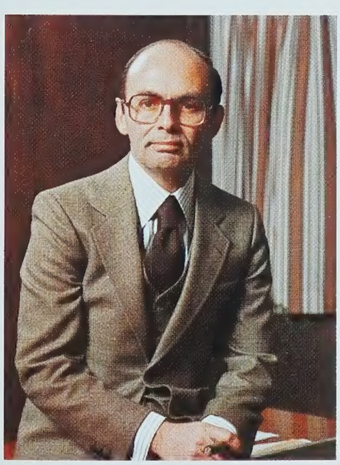
HOWARD, DIXON & MACKIE, Calgary
PAUL, WEISS, RIFKIND, WHARTON & GARRISON, New York
TEACHER, STERN, HUNTER & SELBY, London

## Banker

THE ROYAL BANK OF CANADA

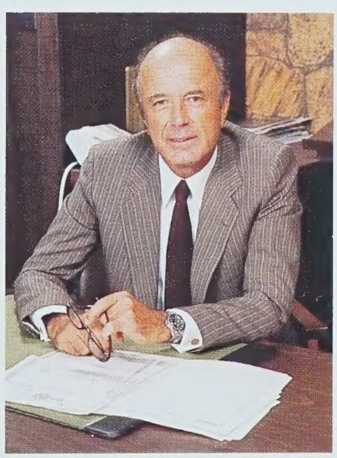
DARYL K. SEAMAN

FREDERIC J. AHERN



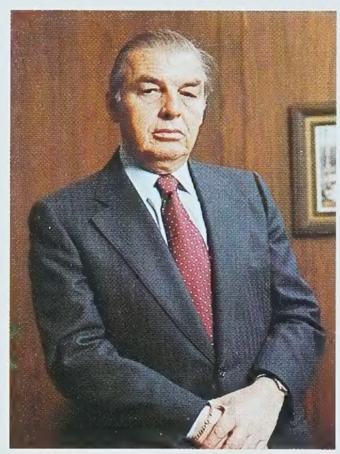
E. LEO KOLBER

J. RICHARD HARRIS



JAMES S. GRAHAM

BYRON J. SEAMAN



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